Date	2-11-2025
Team id	**NM2025TMID04066**
Project name	**Streamlining ticket support for efficient support operation**
Team members	4

Requirement Analysis Phase: Streamlining Ticket Support Operations

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Objective

To identify, document, and prioritize **business, functional, and technical requirements** needed to optimize ticket support operations — ensuring alignment between user needs, organizational goals, and technological capabilities.

Key Goals

1. Understand the **current state** of ticket support operations.
2. Capture **user needs** from agents, customers, and management.
3. Define **functional requirements** for automation, workflows, and reporting.
4. Define **technical requirements** for system integration and scalability.
5. Align requirements with measurable KPIs (efficiency, resolution time, customer satisfaction).

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1. Requirement Gathering Activities

Activity	Purpose	Output
Stakeholder Interviews & Workshops	Capture needs and pain points from agents, supervisors, IT, and customers.	Interview summaries, requirement notes
Process Observation / Shadowing	Observe real ticket handling to identify inefficiencies or repetitive tasks.	Process observation log
Data Analysis	Review ticket data (volumes, categories, response time, SLA breaches).	Quantitative insight reports
Surveys & Feedback Forms	Collect broader input from support staff and customers.	Survey analysis
System Audit	Assess current ticketing platform capabilities, integrations, and limitations.	Technical audit report

Activity	Purpose	Output
Benchmarking	Compare with industry best practices or similar organizations.	Gap analysis report

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2. Key Requirement Categories

A. Business Requirements (Strategic Level)

High-level goals aligned with business outcomes.

- Reduce **average resolution time** by X%.
- Improve **First Contact Resolution (FCR)** rate.
- Enhance **customer satisfaction (CSAT/NPS)**.
- Lower **ticket backlog and escalation rates**.
- Enable **data-driven decision-making** through better analytics.

B. Functional Requirements (Operational Level)

What the system/process *should do* to achieve business goals.

Area	Functional Requirements Examples
Ticket Intake & Classification	- Auto-categorize tickets by issue type using AI/NLP. - Auto-assign priority and route to the right queue.
Workflow Automation	- Create rule-based workflows for follow-ups, escalations, and status changes. - Auto-close resolved tickets after X days of inactivity.
Knowledge Management	- Integrate internal knowledge base into the ticketing interface. - Suggest solutions to agents/customers based on ticket content.
Agent Interface	- Provide a unified view of customer history, ticket status, and SLA countdown. - Enable quick-reply templates and macros.
Customer Interaction	- Offer self-service options (FAQ, chatbot). - Provide ticket tracking via portal or email updates.
Analytics & Reporting	- Real-time dashboard for SLAs, volume, and agent performance. - Monthly trend reports on common issues.

C. Technical Requirements

Define the underlying technical expectations and system integrations.

Area	Technical Requirements Examples
System Integration	- Seamless integration with CRM, email, chat, and phone systems. - API support for data exchange between systems.
Scalability & Performance	- Must handle current ticket load + projected growth (e.g., 20% YOY).
Security & Compliance	- Ensure data privacy (GDPR, SOC2 compliance). - Implement role-based access control.
AI/Automation Tools	- Support NLP, sentiment analysis, and machine learning for triage.
Reporting Tools	- Integrate with BI tools (Power BI, Tableau) for advanced reporting.

D. User Requirements (People & Usability)

End-user experience and usability expectations.

User Group	Requirements
Agents	- Intuitive UI and minimal clicks to resolve a ticket. - Ability to search similar past cases easily.
Supervisors	- Dashboard to monitor queues and SLAs in real time. - Easy reassignment and workload balancing.
Customers	- Transparent ticket progress and estimated resolution times. - Self-service support for common issues.

E. Non-Functional Requirements

Operational qualities that define system performance and reliability.

Category	Examples
Performance	Ticket creation and updates should process within < 2 seconds.
Availability	System uptime ≥ 99.9%.
Usability	Agents can perform key actions in ≤ 3 clicks.
Maintainability	Automated updates and minimal downtime.
Data Quality	All tickets must have consistent categorization and tagging.

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3. Gap Analysis

Purpose: Compare current capabilities vs. required functionalities.

Area	Current State	Desired State	Gap Identified
Ticket Routing	Manual assignment by team leads	AI-based auto-routing	Automation & AI capability missing
Reporting	Basic volume metrics	SLA, sentiment, and trend analysis	Advanced analytics tools needed
Knowledge Base	Static documents	Dynamic, searchable, AI-suggested content	Knowledge management upgrade needed

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4. Prioritization Framework (MoSCoW Method)

Priority	Definition	Example Requirement
Must Have	Critical for success	Auto-triage and SLA dashboards
Should Have	Important but not critical	AI-based response suggestions
Could Have	Adds value if feasible	Predictive workload forecasting
Won't Have (Now)	Out of current scope	Voice ticket classification

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5. Deliverables of Requirement Analysis Phase

1. ✓ **Requirements Specification Document (BRD or FRD)**
2. ✓ **Gap Analysis Report**
3. ✓ **Prioritized Requirement Matrix (MoSCoW or RICE)**
4. ✓ **Process Flow Diagrams (Current vs. Future)**
5. ✓ **Stakeholder Sign-off Document**

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